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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,355	12/19/2001	Toyoaki Kitano	1163-0380P	7839
2292	7590	11/05/2003	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			RICHER, AARON M	
			ART UNIT	PAPER NUMBER
			2676	
DATE MAILED: 11/05/2003				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/018,355

Applicant(s)

KITANO ET AL.

Examiner

Aaron M Richer

Art Unit

2676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "Adjustable In-Car Display Device Having Fold-down Operating Means".

2. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

3. The abstract does not give an explanation or summary of what the invention is or what the invention does. It only references figures.
4. A substitute specification excluding the claims is required pursuant to 37 CFR 1.125(a) because of many examples of improper idiomatic English, such as "it has been

the dominant influence of the times" (page 1, line 26) and "In addition, arrangements considered disposition of the displaying portion..." (page 2, lines 17-18) .

A substitute specification filed under 37 CFR 1.125(a) must only contain subject matter from the original specification and any previously entered amendment under 37 CFR 1.121. If the substitute specification contains additional subject matter not of record, the substitute specification must be filed under 37 CFR 1.125(b) and (c).

A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter.

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 1 recites the limitation "the predetermined signal" in line 3. There is insufficient antecedent basis for this limitation in the claim. It is not clear from Claim 1 what the phrase "the predetermined signal" is referring to. Claims 2-8 are dependent on

Claim 1 and therefore incorporate this limitation as well. It is recommended that said phrase be changed to "a predetermined signal" to put the claims in compliance with 35 U.S.C. 112, second paragraph.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3 and 7-8 are rejected, as best understood, under 35 U.S.C. 102(b) as being anticipated by Mok (U.S. Patent 6,008,986).

6. Claim 1 recites "A display apparatus comprising: a displaying means for displaying visual information". Mok discloses "a display... placed in the upper housing portion... of the computer housing" (col. 2, lines 50-52). Claim 1 further recites "an operating means for outputting the predetermined signal based on an operation". Mok further discloses operating means, in the form of a keyboard: "A keyboard is placed on top of the lower portion of the computer housing" (col. 2, lines 53-54). While it is not clear from Claim 1 what "the predetermined signal" refers to, a keyboard is capable of outputting a predetermined signal, and so it is assumed that a keyboard is applicable art to this limitation.

Finally, Claim 1 recites "a supporting means for supporting said displaying means, said supporting means being provided near a peripheral portion of said displaying means, said operating means being rotatable on said supporting means".

Mok discloses supporting means for supporting the displaying means, in the form of hinges, provided near a peripheral portion of the display: "a display panel hingedly connected proximate a rear edge of said housing and being pivotable between a folded down closed position and upwardly raised open positions" (col. 4, lines 31-34). This disclosure also shows that the operating means is pivotable, or rotatable, on the supporting means with respect to the displaying means.

7. Claim 2 recites "The display apparatus as claimed in claim 1, wherein said operating means is set, at a time of non-operation, to a first position in which an operating surface faces a display surface of said displaying means". Mok discloses that "When the upper portion or display panel...is swung closed or downwardly, an opposite movement of the mechanism takes place, and the keyboard...moves back into the rest position" (col. 3, lines 58-62) It is clearly shown by Figure 6 of Mok that the display means and the operating means (keyboard) are facing each other in this "rest position". The "rest position" disclosed by Mok is equivalent to the "time of non-operation" recited by Claim 2.

Claim 2 further recites that the operating means is "set, at a time of operation, to a second position in which, rotating said first position, an operation to said operating surface is permitted". Mok discloses that "When the laptop computer 50 is swung open, as shown in FIGS. 4 and 5, the lower bar 56 is pulled towards the rear of the computer 50. This movement of the lower bar 56 rotates the gears 62 counter-clockwise and forces the upper bar 56 to move towards the front of the computer. As a result, the keyboard 26 is slid outwardly towards the front and concurrently tilted upwardly." This

outward and upward keyboard movement, after the pivoting or rotation of position, is done so that the user can use the keyboard for operation, as in Claim 2.

8. Claim 3 recites "The display apparatus as claimed in claim 2, wherein said supporting means comprises an arm portion, said arm portion being housed when said operating means is set to said first position". Mok discloses that "said lower bar having an extension arm journaled to said display panel [that] displaces said lower bar to tilt said keyboard angularly upwardly while concurrently causing said lower bar to rotate said gears and sliding the upper bar and the therewith attached keyboard forwardly and outwardly relative to the housing" (col. 4, lines 40-54). Clearly this describes an arm portion that projects the operating means (keyboard) forward from the displaying means when used.

Claim 3 further recites "[the arm portion] being projected forward when said operating means is set to said second position so as to separate said displaying means from said operating means". Mok discloses that "closing of said display panel causes said lower bar to move forwardly so as to lower the keyboard into the housing" (col. 4, lines 55-61). This describes an arm portion moving back into the housing with the operating means (keyboard) when the operating means are not used.

9. Claim 7 recites "The display apparatus as claimed in claim 2, wherein the second position is a position in which the operating surface of said operating means forms an obtuse angle relative to the display surface of said displaying means." Figures 2 and 5 of Mok clearly show the display surface (element 22) at an obtuse angle with the operating means (keyboard, element 26).

11. Claim 8 recites "The display apparatus as claimed in claim 1, further comprising an angle adjusting means for adjusting an angle to be formed between the operating surface of said operating means and the display surface of said displaying means."

Mok discloses that the display panel is "pivotable between a folded down closed position and upwardly raised open positions" (col. 5, lines 31-33). The display panel is pivotable with respect to the operating panel and therefore an angle adjustment takes place every time the display panel is pivoted.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mok in view of Batio (U.S. Patent 5,949,643).

14. Claim 4 recites "The display apparatus as claimed in claim 2, wherein, when said operating means is set to said first position, said displaying means makes a display only on a display surface which is free from overlapping with said operating means." Mok teaches a display apparatus as claimed in claim 2. Mok does not teach displaying means that makes a display only on a display surface which is free from overlapping. Batio, however, discloses "a dual LCD display or split screen 101, with each section being pivotally attached to a keyboard half-section. Each half of the split-screen is independently, pivotally mounted so that each may be moved separately" (col. 8, lines

14-24). Batio further discloses that the screens can be used simultaneously for different purposes: "one half of the split-screen 101 may be used for normal computer functions, such as word processing, by means of the first microprocessor, whereas the second half of the split screen 101 may be used for playing video games via the dedicated game-microprocessor" (col. 8, lines 50-56). Batio discloses many advantages of a split display, such as for two-player game play (col. 3, lines 61-67; col. 4, lines 1-4) and for use as a translation device (col. 9, lines 15-23). Batio also discloses that the split screen allows the device to be "compactly stored" (col. 2, lines 5-11). Being pivotally mounted, these screens can be folded down onto the operating means (keyboard half-section). It is also shown that the two screens can be used independently of each other. If one screen is in use (free from overlapping means), and the other is folded-down and not in use (not free from overlapping means), only the display surface that is free from overlapping means will be used, as in Claim 4. It would have been obvious to one skilled in the art to modify Mok to include a split display, in which only the part of the display free from overlapping means would be used, in order to make the device more useful as taught by Batio.

15. Claim 6 recites "The display apparatus as claimed in claim 2, wherein said displaying means displays the visual information in a plurality of screens, and wherein, in case it is to make a divided display when said operating means is set to said first position, the divided display is made only on the display surface free from overlapping with said operating means, and wherein, in case it is to make a divided display when said operating means is set to said second position, the divided display is made on all of

the display surface.” Mok teaches a display apparatus as claimed in claim 2. Mok does not teach a divided display when operating means are set to first position or second position. Batio, however, discloses a divided display on the entire display surface: “one half of the split-screen 101 may be used for normal computer functions, such as word processing, by means of the first microprocessor, whereas the second half of the split screen 101 may be used for playing video games via the dedicated game-microprocessor” (col. 8, lines 50-56). This describes a divided display on all of the display surface. Also, since Batio states that the screens can be used independently of one another (see rejection of Claim 4), and functions such as word processing and video games use divided displays to show information, toolbars, etc., it is implied that Batio’s invention would display a divided display on only one screen if the other screen was not free from overlapping means. In this way, Batio is describing a divided display made only on the display surface free from overlapping with operating means. It would have been obvious to modify Mok to include a divided display available on part or all of a screen, in order to allow users to perform multiple tasks at one time as taught by Batio.

16. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mok in view of Batio as applied to claim 4 above, and further in view of Gouko (U.S. Patent 6,222,507). Claim 5 recites “The display apparatus as claimed in Claim 4, wherein said displaying means changes a displaying scale depending on a size of the display surface available for displaying.” Mok, in view of Batio, teaches a display apparatus as described in the rejection of Claim 4 above. Neither Mok nor Batio teaches a change of

display scale depending on a size of display surface available. Gouko, however, discloses a method in which "a plurality of images are displayed in such a plurality of display panels. Therefore, an image displayed therein can become larger in size" (col. 5, lines 37-45). Gouko further discloses the rationale for this step: "when a plurality of images are displayed in divided areas of a single display panel, it is inevitably caused to occur that each image is too small to be seen comfortably" (col. 5, lines 37-35). It would have been obvious to one skilled in the art to modify Mok and Batio to change the display scale based on the size of the display surface in order to display images that can be seen comfortably as taught by Gouko.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with respect to folding display apparatuses and in-car display apparatuses in general:

U.S. Patent 6,144,358 to Narayanaswamy

U.S. Patent 6,262,785 to Kim

U.S. Patent 6,443,574 to Howell

U.S. Patent 6,522,368 to Tuccinardi

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron M Richer whose telephone number is (703) 305-5825. The examiner can normally be reached on weekdays from 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (703) 308-6829. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

AMR
10/28/03



JOSEPH MANCUSO
PRIMARY EXAMINER